

**SZUTEST TECHNICAL INSPECTION and CERTIFICATION**

İnönü Mah. Kayışdağı Cad. Münire Sağ İş Merkezi No:148 Kat 3-4 Ataşehir, İstanbul,Turkey

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**TEST REPORT**

**No. 11-0301/01**

**Product:** Power Board

**Type:** TT-08Eu

**Customer:** **TTAF Elektronik Sanayi ve Ticaret Limited Şirketi**  
İstanbul Caddesi No:27/1-2-3 Kavaklı Köyü  
Beylikdüzü, İstanbul, Türkiye

**Manufacturer:** **TTAF Electronic Manufactory Limited Company**  
Flat/Rm N Blk 2 17/F Goldfield Building 144-150 Tai Lin Pai Road  
Kwai Chung,Hong Kong, China

**Person responsible:** Elec Eng Ergün CENGİZ

**Date of issue:** 2011-03-03

**Distribution list:** 2x SZUTEST

1x Producer

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The Test Report can be reproduced as a whole only.

The test and examination results are relevant to the tested products only.

The parts of the test report marked like this (\*) are outside of accreditation according to ENISO/IEC17025.

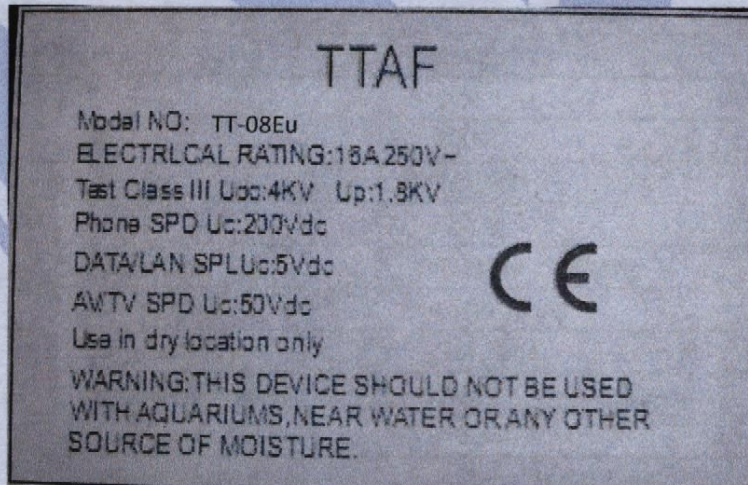
The parts of the test report marked like this (\*\*) contain the results of inspection  
(no tests in the sense of EN ISO/IEC 17025).

The tests have been carried out by virtue of the following documents:

- Order ev. Number LVD811307-1 at SZUTEST on 2011-02-17
- Contract Number LVD811307 dated 2011-02-17

### I. Description of product

Power Board TT-08Eu is an energy conserving device that automatically detects power consumption and turn off connected electrical appliances to save standby power consumption.



## Specifications

### Physical

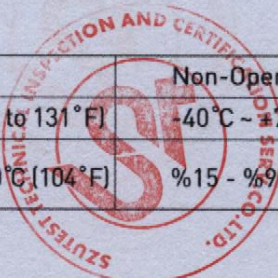
Width	44.25 cm
Depth	11.2 cm
Height	4.5 cm
Weight	1.30 kg
Power Cord Length	1.8 m (1.5mm <sup>2</sup> )

### Electrical

AC Voltage	220-250V/50Hz/60Hz	
Maximum Current	16 A	
Standby Power Consumption	0.85W	
Current Display Tolerance	±0.3A	
Shutdown Conditions	Threshold (Descendent Current Variation)	>70%
	Detection Time	30 Seconds
	Turn-Off Delay Time	3 minutes
IR Receiver Characteristics	Frequency	30KHz ~ 60KHz
	Distance (0° degree)	9 Meters (37.9KHz)
	Distance (±40° degree)	6 Meters (37.9KHz)
Surge Energy Joule Rating	3672 J	
Surge Protection Mode	L-N, L-G, N-G	
Clamping Voltage	800V	
Maximum Peak Spike Current	144000A	
Maximum Spike Voltage	6KV	
EMI / RFI Noise Filter	Frequency	150KHz ~ 100MHz
	Attenuation	Up to 75 dB
DSS/COAX Cable Protection	Surge Arrestor	Gas Tube
	Breakdown Voltage	< 75V
	Insertion Loss	< 0.1dB
	Line Protection	2 Pairs (Aerial Type)

### Environmental

	Operating	Non-Operating
Temperature	0° ~ +55°C (32°F to 131°F)	-40°C ~ +70°C
Relative Humidity (non-condensing)	%15 to %95 at 40°C (104°F)	%15 - %90 (65°C)



## II. Tested sample

- number of samples: 1
- date of submission: 2011-02-21
- serial No.: TT-08Eu

Inspection, tests and evaluations were performed in **SZUTEST Teknik Kontrol ve Belgelendirme Hiz.Tic.Ltd. Şti.** İstanbul, Turkey by testing engineer Mech.Eng.Şükrü Aybar.

Tests were carried out by means of the measuring equipment with the valid calibration.

## III. Results of tests and examination

The results of tests and examination are given in the Particular protocols which is the part of this Test report:

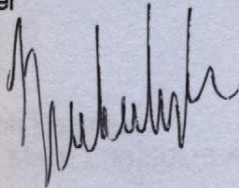
- Particular protocol No. 11-0301/01/T1
- Particular protocol No. 11-0301/01/T2
- Particular protocol No. 11-0301/01/T3

## IV. The list of used basis

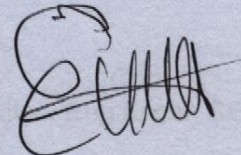
- Order ev. Number LVD811307-1 at SZUTEST on 2011-02-17
- Contract Number LVD811307 dated 2011-02-17
- Particular protocol No. 11-0301/01/T1
- Particular protocol No. 11-0301/01/T2
- Particular protocol No. 11-0301/01/T3
- EN 60335-1:2002 Household and similar electrical appliances — Safety — Part 1: General requirements

The persons stated below are accountable for the accuracy of the above-specified data:

Mech. Eng. Şükrü AYBAR  
Test Engineer



Elec. Eng. Ergün CENGİZ  
Manager of Testing Department



**SZUTEST TECHNICAL INSPECTION and CERTIFICATION**

İnönü Mah. Kayışdağı Cad. No: 148 Kat 3-4 Ataşehir / İstanbul

Particular protocol No:	11-0301/01/T1	Page 1/1		
Inspection according to :	EN 60335-1:2002 Annex A art. A1			
Product / Type / Serial Number :	Power Board, TT-08Eu			
Examination Engineer:	Şükrü AYBAR			
Date of Inspection	2011-02-21			
Measuring instruments:				
Designation	Evidentiary Number	Number of calibration protocol	Period of validity	Comment
CE Multitester MI 2094	SZU138900 1	2010E3150	06/2011	

**Requirement (\*):** EN 60335-1 art.13.3 Electric Strength Test.

The insulation of the appliance is subjected to a voltage of substantially sinusoidal waveform having a frequency of approximately 50 Hz or 60 Hz for 1 minute. The value of the test voltage between live parts and accessible metal parts separated from live parts by basic insulation only is 1000V.

No breakdown shall occur. Breakdown is assumed to occur when the current in the test circuit exceeds 5 mA.

**Method:**

The voltage is to apply between the conductors of live conductors and the basic insulation parts

**Test Results :**

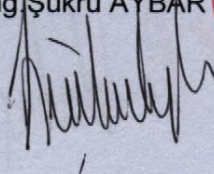
Used On (1750V)	Current in test circuit(mA) / Number of Measure		
	1	2	3
L-Metal	NA	NA	NA
N-Metal	NA	NA	NA
Used On (3750V)	Current in test circuit(mA) / Number of Measure		
	1	2	3
L-DI	0,0	0,0	0,0
N-DI	0,0	0,0	0,0

**DI: double insulated part**

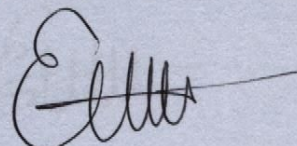
**Status:** The electrical equipment has withstood a test voltage. No breakdown occurs. Current was not measured

**Uncertainty of measure:** It was not required.

Examination Engineer:  
Name : Mech.Eng.Şükrü AYBAR  
Signature:




Control:  
Elec. Eng Ergün CENGİZ



# SZUTEST TECHNICAL INSPECTION and CERTIFICATION

İnönü Mah. Kayışdağı Cad. No: 148 Kat 3-4 Ataşehir / İstanbul

Particular protocol No:	11-0301/01/T2	Page1/1		
Inspection according to :	EN 60335-1:2002 art. 10.1			
Product / Type / Serial Number :	Power Board, TT-08Eu			
Examination Engineer:	Şükrü AYBAR			
Date of Inspection	2011-02-21			
Measuring instruments:				
Designation	Evidentiary Number	Number of calibration protocol	Period of validity	Comment
CE Multitester MI 2094	SZU1389001	2010E3150	06/2011	
K Voltage Regulator	300400	E 6102086	05.2011	

**Requirement (\*):** EN 60335-1:2002 Power Input and Current Art. 10.1,10.2

If an appliance is marked with **rated power input**, the power input at normal operating temperature shall not deviate from the **rated power input** by more than +%20 deviation

If an appliance is marked with **rated current**, the current at normal operating temperature shall not deviate from the **rated current** by more than +15 % or 0,30 A

(whichever is the greater) deviation

**Method:** Rated Voltage applied to electrical equipment.

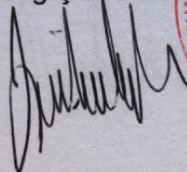
### Test Results :

Tests	Voltage/ Frequency(V)	Rated Power (W)	Measured Power (W)
1	231/ 50,02 Hz	0,85W	0,6W
2	231/ 49,92 Hz	0,85W	0,6W
3	230/ 50,01 Hz	0,85W	0,6W

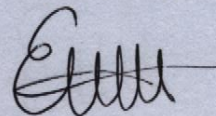
**Status :** The measured values was not exceed the deviation.

**Uncertainty of measure:** It was not required

Examination Engineer:  
Name : Mech.Eng.Şükrü AYBAR  
Signature:



Control:  
Elec. Eng Ergün CENGİZ



## SZUTEST TECHNICAL INSPECTION and CERTIFICATION

Inönü Mah. Kayışdağı Cad. No: 148 Kat 3-4 Ataşehir / Istanbul

Particular protocol No:	11-0301/01/T3	Page1/1		
Inspection according to :	EN 60335-1:2002 art. 11			
Product / Type / Serial Number :	Power Board, TT-08Eu			
Examination Engineer:	Şükrü AYBAR			
Date of Inspection	2011-02-21			
Measuring instruments:				
Designation	Evidentiary Number	Number of calibration protocol	Period of validity	Comment
CE Multitester MI 2094	SZU138900 1	2010E3150	06/2011	
K Voltage Regulator	300400	E 6102086	05.2011	

**Requirement (\*):** EN 60335-1:2002 art.11

Appliances and their surroundings shall not attain excessive temperatures in normal use.

Maximum normal temperature rises are shown in 60335-1:2002 art. 11.8 Table 3.

**Method:**

Motor-operated appliances are operated under normal operation and supplied with 1,06 times the rated voltage. ( 243,8 V ) During the test, the temperature rises are monitored continuously and shall not exceed the values shown in table 3.

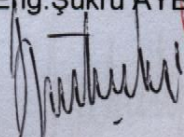
**Test Results :**

Used On	Before Operation Temperature (C)	After Operation Temperature (C)	Measured Temperature Rise ( K)	Maximum Temperature (K)
Cable	22,0	25,0	3,0	60
Cover	22,0	24,0	2,0	60
BackSide	22,0	24,0	2,0	60

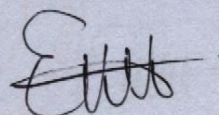
**Status :** The measured values was not exceed maximum temperature rise values.

**Uncertainty of measure:** It was not required

Examination Engineer:  
Name : Mech.Eng.Şükrü AYBAR  
Signature:




Control:  
Elec. Eng Ergün CENGİZ



# SZUTEST TECHNICAL INSPECTION and CERTIFICATION

İnönü Mah. Kayışdağı Cad. No: 148 Kat 3-4 Ataşehir / İstanbul

Particular protocol No: 11-0301/01/T4 Page 1/1

Inspection according to : EN 60335-1:2002 art. 16.2

Product / Type / Serial Number : Power Board, TT-08Eu  
Examination Engineer: Şükrü AYBAR

Date of Inspection : 2011-02-21

Measuring instruments:

Designation	Evidentiary Number	Number of calibration protocol	Period of validity	Comment
CE Multitester MI 2094	SZU138900 1	2010E3150	06/2011	
K Voltage Regulator	300400	E 6102086	05.2011	

**Requirement (\*):** EN 60335-1 art. 16.2 Leakage Current Test.

The leakage current of the appliance shall not be excessive and its electric strength shall be adequate.

The test power is 1,15 times **rated power**, for single-phase appliances;

The leakage current shall not exceed for stationary class I heating appliances

-0,75 mA or 0,75 mA per kW rated power input of the appliance with a maximum of 5 mA, whichever is higher

### Method:

The leakage current is measured within 5 s after the application of the test voltage.

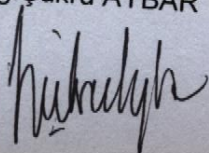
### Test Results :

Number of Measure	Power Applied (W)	Leakage Current (mA)
1	0,8 W	0,01 mA
2	0,7 W	0,02 mA
3	0,7 W	0,01 mA

**Status :** The measured leakage current values was not exceed 1,5 mA

**Uncertainty of measure:** It was not required

Examination Engineer:  
Name : Mech.Eng.Şükrü AYBAR  
Signature:



Control:  
Elec. Eng Ergün CENGİZ

